

ANASTOMOSIS DEVICE AND METHOD**ABSTRACT OF THE DISCLOSURE**

5 A method for sealingly joining a graft vessel to a target vessel at an anastomosis site, the target vessel having an opening formed therein. The method includes positioning a fastener made from a deformable material radially adjacent to a free end portion of the graft vessel. The material is transformable between a non-fluent state and a fluent state, upon application of energy to the material. The method further includes
10 inserting at least the free end portion of the graft vessel in the target vessel through the opening in the target vessel. Energy is then supplied to the deformable material at an intensity sufficient to transform the material into the fluent state. The free end portion of the graft is radially expanded to expand the graft vessel into intimate contact with an inner wall of the target vessel. The energy supply is discontinued so that the material
15 returns to its non-fluent state to sealingly secure the graft vessel to the target vessel.

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